

AMENDMENTS TO THE CLAIMSIN THE CLAIMS:

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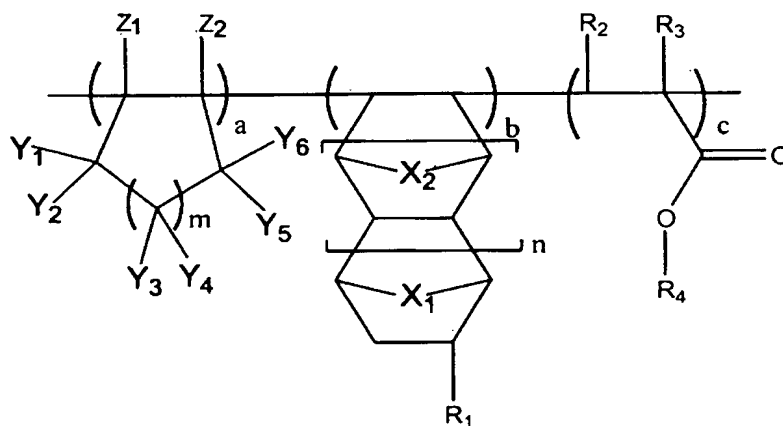
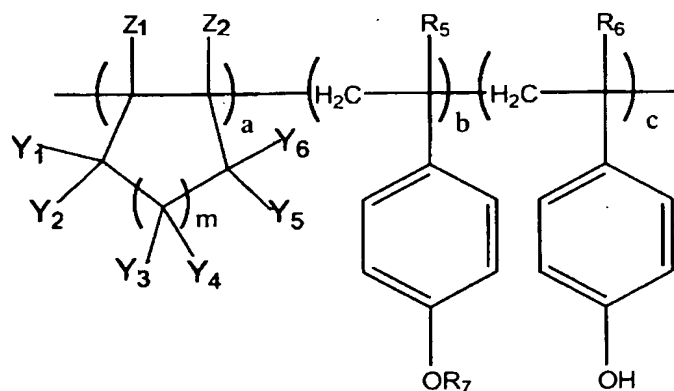
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Please cancel claims 1-4, 11-28 and 25-31 without prejudice or disclaimer, and amend claims 5 and 19 as follows:

1-4. (Currently canceled))

5. (Currently amended) ~~The A photoresist polymer according to claim 4,~~
~~wherein the polymer comprises~~ comprising a repeating unit selected from the group
consisting of Formula 2 or and Formula 3.

Formula 2Formula 3

wherein R_1 is selected from the group consisting of H, halogen, (C_1-C_{20}) alkyl, (C_1-C_{20}) alkyl with at least one halogen substituent, (C_1-C_{20}) alkyl containing at least one of an ether group $(-O-)$ and an ester group, (C_1-C_{20}) alkyl with at least one halogen substituent and containing at least one of an ether group and an ester group, and $-COOR'$;

R_2 , R_3 , R_5 and R_6 are individually selected from the group consisting of H, halogen, (C_1-C_{20}) alkyl, (C_1-C_{20}) alkyl with at least one halogen substituent, (C_1-C_{20}) alkyl containing at least one of an ether group and an ester group and (C_1-C_{20}) alkyl with at least one halogen substituent and containing at least one of an ether group and an ester group;

R' , R_4 and R_7 are individually acid labile protecting groups;

X_1 and X_2 are individually selected from the group consisting of (C_1-C_{10}) alkylene, O and S;

Y_1 , Y_2 , Y_3 , Y_4 , Y_5 , Y_6 , Z_1 and Z_2 are individually selected from the group consisting of halogen, an alkyl partially substituted with halogen, and an alkyl wholly substituted with halogen;

m and n are individually integers ranging from 0 to 2; and

the ratio $a : b : c$ of Formula 2 falls within the ~~ranges~~ range 1-50mol% : 0-90mol% ~~present and in an amount up to and including 90mol% : 0-90mol%;~~ and

the ratio $a : b : c$ of Formula 3 falls within the range 1-50mol% = 0-90mol% : 0-90 mol%, wherein at least one of b and c must be present.

6. (Original) The photoresist polymer according to claim 5, wherein the R_2 , R_3 , R_5 and R_6 are individually selected from the group consisting of H, F, (C_1-C_{20}) alkyl, (C_1-C_{20}) perfluoroalkyl, (C_1-C_{20}) alkyl containing at least one of an ether group and an ester group, (C_1-C_{20}) perfluoroalkyl containing at least one of an ether group and an ester group, (C_1-C_{20}) alkyl partially substituted with F, and (C_1-C_{20}) alkyl partially substituted with F and containing at least one of an ether group and an ester group.

7. (Original) The photoresist polymer according to claim 5, wherein the Y₁, Y₂, Y₃, Y₄, Y₅, Y₆, Z₁ and Z₂ are individually selected from the group consisting of F, Cl, Br, I and CF₃.

8. (Original) The photoresist polymer according to claim 5, wherein the acid labile protecting group is selected from the group consisting of 2-methyl 2-adamantyl, 2-ethyl 2-adamantyl, 8-ethyl 8-tricyclodecanyl, tert-butyl, tetrahydropyran-2-yl, 2-methyl tetrahydropyran-2-yl, tetrahydrofuran-2-yl, 2-methyl tetrahydrofuran-2-yl, 1-methoxypropyl, 1-methoxy-1-methylethyl, 1-ethoxypropyl, 1-ethoxy-1-methylethyl, 1-methoxyethyl, 1-ethoxyethyl, tert-butoxyethyl, 1-isobutoxyethyl and 2-acetylmenth-1-yl.

9. (Original) The photoresist polymer according to claim 5, wherein the repeating unit of Formula 2 is selected from the group consisting of poly(hexafluorocyclobutene/2-methyl 2-adamantyl 5-norbornene-2-carboxylate), poly(octafluorocyclopentene/8-ethyl 8-tricyclodecanyl 5-norbornene-2-carboxylate) and poly(octafluorocyclopentene/2-methyl 2-adamantyl 5-norbornene-2-carboxylate/2-ethyl 2-adamantyl acrylate).

10. (Original) The photoresist polymer according to claim 5, wherein the repeating unit of Formula 3 is poly(hexafluorocyclobutene/4-ethoxyethoxy styrene/4-hydroxy styrene).

11-18. (Currently canceled)

19. (Currently amended) A photoresist composition comprising:

- (i) the photoresist polymer of claim ~~4~~5;
- (ii) an organic solvent; and
- (iii) a photoacid generator.

20. (Original) The photoresist composition according to claim 19, wherein the photoacid generator is selected from the group consisting of phthalimidotrifluoromethane sulfonate, dinitrobenzyltosylate, n-decyl disulfone and naphthylimido trifluoromethane sulfonate.

21. (Original) The photoresist composition according to claim 20, wherein the photoacid generator further comprises a compound selected from the group consisting of diphenyl iodide hexafluorophosphate, diphenyl iodide hexafluoroarsenate, diphenyl iodide hexafluoroantimonate, diphenyl p-methoxyphenylsulfonium triflate, diphenyl p-toluenylsulfonium triflate, diphenyl p-isobutylphenylsulfonium triflate, diphenyl p-tert-butylphenylsulfonium triflate, triphenylsulfonium hexafluorophosphate, triphenylsulfonium hexafluoroarsenate, triphenylsulfonium hexafluoroantimonate, triphenylsulfonium triflate, dibutylnaphthylsulfonium triflate and mixtures thereof.

22. (Original) The photoresist composition according to claim 19, wherein the photoacid generator is present in an amount ranging from about 0.05 to about 10% by weight of the photoresist polymer.

23. (Original) The photoresist composition according to claim 19, wherein the organic solvent is selected from the group consisting of methyl 3-methoxypropionate, ethyl 3-ethoxypropionate, propylene glycol methyl ether acetate, cyclohexanone, 2-heptanone, ethyl lactate and mixtures thereof.

24. (Original) The photoresist composition according to claim 19, wherein the organic solvent is present in an amount ranging from about 500 to about 2000% by weight of the photoresist polymer.

25-31. (Currently canceled)